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# Introduction

Takatoshi Ito and Andrew K. Rose

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This volume is a collection of papers that were presented at the 17th East Asian Seminar in Economics (EASE) on June 22–24, 2006. The conference was organized around three inter-related research interests: global imbalances, monetary and exchange rate policy, and the liberalization of capital accounts.

## Global Imbalances

The first three chapters deal with the global imbalances, which has been one of the important and puzzling policy issues in the international policy arena since 2003. The global imbalance consists of a number of related and remarkable developments primarily in the United States and East Asia (although oil-producing nations are also involved): large American current account deficits (reaching over 6% of American GDP in 2005 and 2006), large Chinese current account surpluses, a large accumulation of foreign reserves among the Asian countries, low global real interest rates, and large current account surpluses of oil-producing nations (thanks mostly to high oil prices). Many of these developments are unprecedented, especially in size. Such imbalances might be expected to point to substantial dollar

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depreciation and a Chinese currency appreciation. Yet the dollar, as measured by the real effective exchange rate, has not depreciated much in recent years, while the Chinese yuan has been a currency *de facto* (if no longer *de jure*) pegged to the U.S. dollar. The Chinese currency has been highly managed and its stability is maintained with heavy intervention by the Chinese central bank (the People's Bank of China). Many economists have predicted (or wished for) a fall of the dollar, but all have been disappointed—at least so far.

Clearly a number of different actors are present in the global imbalance phenomenon, and it is difficult to pinpoint a single cause that is most important. Nevertheless, each of the first three chapters sheds light on the issue from a different angle; the collection as a whole is a contribution to the resolution of the puzzle. Dooley, Folkerts-Landau, and Garber (chapter 1 in this volume) review one view of an important minority about the origin and sustainability of global imbalances. They argue that the current situation of large U.S. current account deficits and large East Asian surpluses can be expected to continue for some time, since it is in the interest of all the relevant parties. Fukuda and Kon (chapter 2 in this volume) are also concerned with the origins of global imbalances; it argues that a preference for dollar assets exhibited by East Asian countries can help explain flows of Asian capital to the United States. Shi (chapter 3 in this volume) argues, consistent with Dooley, Folkerts-Landau, and Garber, that any real appreciation of the Chinese currency can be expected to contribute to the decline in Chinese output. This in turn explains the hesitation of the Chinese government to alter its exchange rate policy.

The Dooley, Folkerts-Landau, and Garber chapter states that the global imbalance situation not only has lasted for a substantial period of time, but can be expected to last considerably longer. The low medium- and long-term American interest rates are used as a key point to suggest that the financial markets do not show signs that any substantial changes are imminent. The same authors have already argued in an influential series of papers that no country has an incentive to deviate from the current situation. The view of the authors is that the world has emerged into a new international financial system that has been dubbed the “Revived Bretton Woods” or “Bretton Woods II” system. In this system, developing countries maintain *de facto* fixed exchange rates vis-à-vis the U.S. dollar. The East Asian countries have deliberately adopted this mercantilist stance, undervaluing their currencies in order to induce rapid economic development via export-lead growth. In the current chapter, Dooley, Landau-Folkerts, and Garber offer a dynamic element to their world view. They show that the patterns of imbalances and the low real interest rates, observed over the past few years in the United States and elsewhere, are empirical evidence that support the Revived Bretton Woods hypothesis. They argue that a sudden change

in an increase in capital outflows (exports of saving) from Asia to well-developed capital markets in the United States and Europe produces an immediate rise in the U.S. dollar and Euro, followed by gradual depreciation. They argue that sterilized intervention does not work and those countries that wished to peg their currencies to the dollar, in particular China, can and will do so when the dollar pegs accord with their economic policy objectives. Thus, in their view, the global imbalances are neither problematic nor unsustainable, and are likely to unwind only slowly.

A complimentary approach is taken in the next chapter. Instead of relying on public policy preferences, Fukuda and Kon attempt to explain the U.S. current account deficits through a shift in preference towards American assets by the rest of the world, most notably East Asian countries. In this view it is reminiscent of recent influential work by Blanchard and Giavazzi, among others. The authors examine the impact of aversion towards liquidity and note that different results occur in response to increases in risk aversion among private agents and the government. The shock causes large current account surpluses and substantial depreciation of the real exchange rate against the international currency. Thus, they argue that the U.S. current account deficits can be caused by reasons that originate from outside the United States, most conventional explanations rely on a decline in American savings, especially from the public sector. Though their chapter points to this possibility, it does not, of course, prove that it is the only or most important reason. The authors do persuasively argue that the decrease in short-term debt immediately after the East Asian crises is consistent with an increase in risk aversion among private agents, while the subsequent increase in reserves is consistent with an increase in aversion on the part of the government.

One important part of the global imbalance problem is the inflexibility of the Chinese currency, which many regard as undervalued. Shi examines the macroeconomic effects of the changes in the value of RMB (the Chinese currency) on output, using a vector autoregression (VAR) approach. The variables analyzed in the model include the real exchange rate, foreign gross domestic product (GDP), the inflation rate and domestic GDP. Using a data set that spans the relevant period—from 1991 through 2005—Shi finds that fluctuations in the real effective exchange rate have a strong and sensible impact on domestic output. In particular, a real RMB appreciation has indeed caused output to decline historically. This is certainly consistent with the Bretton Woods II idea, and helps explain the reluctance in China to revalue the RMB. However, it is important to point out a key cautionary finding in the paper. When Shi adds in the international finance linkage of the Chinese economy by adding the U.S. interest rate into the system, the contractionary effect of RMB real exchange appreciation is diminished.

## Monetary Policy and Exchange Rates

It is widely agreed that any resolution of the global imbalances problem (discussed in the first three chapters), will almost surely require some sort of exchange rate adjustment. Thus, understanding the link between the exchange rate and domestic economic activity is a key goal of international and macro economists. Accordingly, studying the causal relationship between the exchange rate and macroeconomic phenomena is a valuable undertaking that has been widely pursued in the literature. (It might be said that the most important aspects of the entire field of international finance concern the determination of the exchange rate and its linkage to the domestic economy.) The next four chapters examine various aspects of monetary policy and the foreign exchanges in East Asia. These chapters are directly relevant to a number of issues and puzzles of the global financial system, including the topic of global imbalances discussed in the first set of chapters of this volume.

The first examines the relationship between openness and national inflation performance. In a highly open economy the cost of policy mistakes is higher, in part because of the presence of foreign capital works as a competitive force. This is a positive aspect of openness, which helps restrain inflation. However, more open economies experience larger external shocks, and the transmission of these shocks into the economy may be faster, reducing the stability of the domestic economy. Thus, openness has its costs as well as benefits, and monetary policy will tend to be more prudent in an open economy. Using this framework, Wu and Lin (chapter 4 in this volume) critically examine the relationship between economic openness (measured by ratios of imports and exports) and inflation, searching for signs of a tradeoff. The conventional wisdom established by David Romer is that greater openness leads to lower inflation, because the cost of loose monetary policy and the resulting inflation are higher if the economy is more open. The negative relationship between openness and inflation is predicted by time consistency in the context of a monopolistically competitive production sector. Wu and Lin conduct their empirical analysis using a panel data set of thirteen countries (the Group of Seven countries plus four newly industrialized economies, the Philippines, and Mexico). However, among these thirteen countries, Wu and Lin find no clear evidence of the relationship between openness and low inflation.

One of the most important and substantial channels between the exchange rate and the domestic economy is the effect that exchange rate changes have on inflation. Measuring the speed and size of this *pass-through* effect is accordingly viewed as one of the major tasks for policymakers in international finance. A large and fast pass-through effect means that the central bank must pay close attention to the exchange rate when setting its policies. The issue is especially topical since in the literature, it has been ar-

gued that the degree of pass-through has declined in recent years. Campa and Goldberg (chapter 5 in this volume) examine pass-through effects using cross-country, time-series pooled data for OECD countries. They focus on sector-specific import price sensitivities to the exchange rate. To simulate the impact of a change in import prices on the overall consumer price index, Campa and Goldberg use a model of pricing behavior that incorporates a distribution sector. This is potentially important, since before they affect the overall price level, exchange rate changes are commonly thought to show up first in import prices; further pass-through to retail prices can then be expected to be influenced by sectoral distribution patterns and import input use. The degree of pass-through may also be influenced by various other factors, including market structures, pricing policies (since the distribution margin can also be adjusted), product substitutability, slow adjustment of nontradable prices and wages, exchange rate policies, and so forth. One of the major findings of Campa and Goldberg is that the degree of pass-through into import prices is more closely defined by industry than by country; the only exception is the United States. Pass-through into import prices is noisiest and least precisely measured with respect to energy imports. This may be due to regulatory changes in the energy sector in many countries. It is also interesting to note that pass-through effects are very precisely estimated among manufactured goods and food in many countries. Campa and Goldberg argue that growth in imported input use, especially in distribution services, has increased the predicted sensitivity of retail prices of imported goods to exchange rates. In the second part of the paper, the authors calibrate the effects of import prices on consumer prices using observed distribution expenditures and import usage.

Campa and Goldberg analyze the effects of exchange rate on the macroeconomy. The next chapter, by Ito and Hashimoto (chapter 6 in this volume), is completely different. The authors are interested in understanding the determination of exchange rates (not their effects), from a high-frequency microeconomics perspective (instead of taking a macroeconomic view). Their focus is quite narrow; they examine patterns of exchange rate volatility within a single day. Since the influential work of Meese and Rogoff in the early 1980s, many academic economists have come to believe that the exchange rate follows a random walk and is thus nonpredictable. On the other hand, the financial industry spends millions of dollars in purchasing hardware and hiring physics PhDs to develop software programs and trading strategies, all based on the idea of predictability. This shows the serious gap between the academic literature and the real world, a difference that is clearest in the realm of high-frequency exchange rate dynamics. Ito and Hashimoto exploit a new data set of extremely high-frequency that contains actual ready-to-transact quotes and actual transaction prices and volumes, all of which can be combined to construct *order flows*. Using standard techniques, Ito and Hashimoto establish that a

shock to buying order flow results in prices that rise within one to five minutes. However, these effects disappear completely within even as short a period of time as thirty minutes. It is also interesting that the persistence of some key price impacts has declined over time. This paper is one of the first papers to exploit the rich data set made available by EBS, an actual trading platform widely used in the real world. The authors observe a variety of trading patterns as intra daily *seasonality*, and show that order flows proxied by the number of deals are important in predicting the price movements. This controversial finding needs to be established in the out-of-sample exercises in the future work before it is firmly established. Nevertheless, the paper may well encourage the private sector to analyze the exchange rate dynamics further, something that has been the province of academic work to date.

One of the most damaging effects that an exchange rate can have on the economy is when it crashes. There have been many failures of fixed exchange rate regimes, and the East Asian failure in 1997–98 is one of the most important. The fixed exchange rate policy played an important role in both developing financial vulnerabilities in East Asian economies before the crisis, and exacerbating them after it. The dollar peg regime had encouraged easy money to flow into East Asia, resulting in currency overvaluation and double mismatches (of both maturity and currency) in balance sheets. It is thus no surprise that studying East Asian exchange rate policy has been a popular topic in recent policy discussions. The last chapter of this section is by Ogawa and Kawasaki (chapter 7 in this volume); it examines feasible exchange rate regimes in East Asia. In the regional tradition of East Asia, the goal is to find a way to stabilize intraregional exchange rates, since this both reflects and may also encourage a high degree of intraregional trade. More precisely, the authors search for co-integrating vectors for groups of real bilateral exchange rates. They interpret the existence of co-integrated real exchange rates as evidence that supports an optimal currency area among involved countries. Ogawa and Kawasaki examine monthly data from 1987 to 2005 for the East Asian, U.S., and Euro area currencies. They find that before the Asian crisis of July 1997, the yen was not in the East Asian group of countries that showed co-integration. However, after the crisis the yen needs to be included in order to detect co-integration. Although the Japanese yen is sometimes viewed as a currency outside the region, they find that it has indeed been inside the group recently.

### **Liberalization, Market Access, and the Cost of Capital**

Capital flows have been identified as important elements in a host of economic phenomena, and are potentially critical in issues ranging from economic development through currency crises. The benefits for increased capital inflows to developing countries seem obvious: they provide valuable capital inputs, enhance the efficacy with which capital is deployed, and

may also allow risks to be diversified. However unlike trade liberalization, not all economists are enthusiastic toward general capital account liberalization in developing countries. It is appropriate then to reconsider the costs and benefits of capital liberalization.

The last five chapters deal with various issues related to the liberalization of capital accounts, market access, and the cost of capital; they are mainly concerned with examining the hypotheses that capital inflows bring benefits. Liberalization will, in principle, provide much-needed capital to developing countries and thus contribute to development. Opening up previously closed markets should lower the cost of capital and thus enhance economic growth. Henry and Kannan (chapter 8 in this volume) study the relationship between stock market returns and growth rates among emerging market countries. Shin and Park also examine this theme in chapter 12, focusing on Korea. Foreign direct investment especially helps companies in developing countries acquire good governance, managerial improvement, and technological edge. Fukao and colleagues examine FDI data (chapter 11 in this volume), and show that foreign acquisitions improved the productivity and profitability of target firms quicker and to a significantly greater degree than acquisitions by domestic firms. Eichengreen and Luengnaruemitchai (chapter 9 in this volume) examine regional bond holdings in order to measure the degree of financial integration. Finally, the chapter by Wang, Shen, and Liang (chapter 10 in this volume) exploits data on financial service commitments at WTO negotiations, and examines the correlation between financial liberalization and economic growth.

The Henry and Kannan chapter examines the relationship between the stock market returns of emerging markets and their aggregate growth rates. They use the standard aggregate indices—the S&P Emerging Markets Data Base (EMDB) and a data set that spans 1976 through 2005. It would be reasonable to guess that emerging markets that grow faster would also have higher stock market returns. However, the authors find that this conjecture is not in fact confirmed by the data. First, among emerging market countries there seems to be no correlation between growth rates and stock market returns over the last 30 years. Second, emerging market countries have grown faster than the United States, but stock returns of these very different countries have been about the same. Third, Asian emerging markets grew faster than Latin American emerging markets, but experienced lower stock returns than those of Latin America! After establishing this set of interesting puzzles, the authors then set out to explain them. Several hypotheses are considered by Henry and Kannan. First, it turns out that a simple Solow growth model does not predict the results. However, two new ideas prove to be more fruitful. For instance, expected returns may be higher in Asia but the actual returns became higher in Latin America. That is, unexpected favorable growth surprises may explain the returns. Alternatively, stock prices may already have incorporated expected future economic growth at the beginning of the sample, so that the levels of Asian



stock prices were rationally high at the outset. The stylized fact obtained in this paper is new and will become standard reference in the future. The incorporation of estimates of direct rates of return from the EMDB database is particularly convincing evidence.

One of the lessons that Asia learned from the crisis of 1997–98 was the importance of avoiding “double mismatches”—namely, currency and maturity mismatches—in the balance sheets of financial institutions and corporations. In order to mitigate the double mismatch problem, regional central banks and ministries of finance have tried to push the initiative of promoting bonds issued in the local currencies. Progress, however, has been slow. The chapter focuses on financial integration by examining the match between the countries that issue and those that actually hold bonds. They do this using the popular *gravity* model, augmented with other institutional, policy, and economic variables. The data are drawn from the IMF’s increasingly important Coordinated Portfolio Investment Survey (CPIS) database. If residents in the region tend to hold more bonds from the same region, the region is said to be more financially integrated. Eichengreen and Luengnaruemitchai explain the variation in bilateral holdings of long term bonds for a large number of country-pairs over the 2001–03 period. The confidence in their basic results is high since the model works well; other factors such as capital controls, exchange rate volatility and stock market and financial sector size are all significant with the expected signs. To provide a natural comparison, they ask how Asia compares with Europe and Latin America. Europe is clearly ahead of others in terms of financial integration, but Asia has made considerable progress compared to Latin America. This may occur because of institutional advantages that are conducive to intraregional cross-holding of Asian bonds. The authors’ findings are highly relevant for the current policy discussion in the region.

The last three chapters all examine the opening or liberalization of domestic markets and the associated effects on market performance. Wang, Shen, and Liang examine financial liberalization as measured by General Agreement on Trade in Services (GATS) commitments. Fukao and colleagues examine performance of firms acquired by foreign firms and compares them with those acquired by domestic firms. Shin and Park examine foreign participation in the Korean stock market and the effect on the cost of capital.

The Wang, Shen, and Liang chapter examines the contribution of liberalization of trade in services to economic growth. A unique feature of this paper is the measurement of financial liberalization through the degree of commitments in the GATS. Indeed, one of the most valuable and original contributions of this paper lies in the coding, analysis, and inclusion in the growth equation of these GATS commitments. The *de jure* liberalization measures pertain to the 1994–00 and 01–04 periods. Wang finds that

mode 1 (cross-border supply of services), mode 2 (consumption abroad), and mode 3 (commercial presence) are all positively correlated with the income level, but mode 4 (movement of natural persons) is not. The paper also finds a positive link between indicators of financial sector competition and financial sector liberalization; it also finds a positive correlation between economic growth and financial sector competition. A scenario is presented that opening financial markets will increase procompetitive pressure and ultimately lead to large differences in growth rates.

The Fukao, Ito, Kwon, and Takizawa chapter analyzes foreign direct investment (FDI) into Japan. In particular they examine whether a firm is chosen as an acquisition target based on its productivity level, profitability, and other characteristics. They also check whether the performance of Japanese firms acquired by foreign firms improves after acquisition. Their firm-level data set extends from 1994 to 2002. In earlier work, Fukao and colleagues have found that acquisitions by foreigners brought a large and quick improvement in total factor productivity (TFP) and profit rates. However, firms being acquired by foreign firms performed better simply because foreign investors acquired more promising Japanese firms than Japanese investors did. In order to solve this selection bias problem in this paper, the authors combine a difference-in-differences approach with a propensity score matching technique. Thus they first identify comparable firms as defined as firms sharing similar characteristics. They then compare acquired firms and nonacquired firms. Both results from unmatched samples and those from matched samples show that foreign acquisitions improved target firms' productivity and profitability significantly more and quicker than acquisitions by domestic firms. The technology of propensity matching is not new in this literature, but this chapter is probably the first paper to apply the technique to the Japanese M&A case.

Shin and Park study changes in the cost of capital after the opening of the Korean stock markets to foreigners, as proxied by the dividend yield. They employ a firm-level panel regression approach, focusing on the relationship between foreign participation rates and the dividend yield. The latter variable is a standard proxy for the cost of capital. Shin and Park find that the larger the foreign participation rate is, the lower is the dividend yield. But, the relationship is only significant in the post-crisis period when the Korean stock market was fully opened and foreign participation rate became higher. These results are different from those of existing studies based on cross-country data that tend to find the effects of market opening are realized in the early stage of opening. Although the exact mechanism for this finding is left for future research, the finding itself is provocative.

We are extremely happy to have these papers collected into this book. We believe that this volume will contribute to the growing literature on financial markets, regional integration, and economic growth in East Asia.